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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,540	09/24/2003	Alexander W. Harkness	NSD2003-006	5475

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EXAMINER

GREENE, DANIEL LAWSON

ART UNIT PAPER NUMBER

3663

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,540

Applicant(s)

HARKNESS ET AL.

Examiner

Daniel L. Greene Jr.

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to for the reasons set forth in section 3 and 4 of the Office action mailed 6/14/2005.

Applicant's replacement Figures 1 and 3 received 10/11/2005 are NOT acceptable as Figures 1 and 3 introduce new matter.

There is no basis for putting the "support springs" in the indicated position and indicating or limiting the number of "support springs" to two, as the "support springs" could presumably be located in any position and the specification does not specify the number of "springs". In actuality, the specification page 5 lines 10-14 discloses "lower end 70 is preferably supported against the coil stack assemblies by a resilient spring 74" (emphasis added). This appears to indicate that there is only a, or only one resilient spring for each duct. A review of claims 2 and 3 originally as filed does not provide support for more than one spring either as the limitation "wherein the internal ducts have support springs" can also be interpreted as having only one spring per duct. Surely if applicant intended to disclose more than one spring per duct then the specification would have at least used ambiguous terminology as to the number of springs in each duct, however the specification clearly discloses "a resilient spring 74, which may be a narrow deformed length of the internal duct" (emphasis added).

Applicant argues in section A on pages 8-10 (remarks received 10/11/2005) that "patents are written to inform the ordinarily skilled workers in the

pertinent art and are to be evaluated from this viewpoint” and then goes on to cite various references to suggest the level of knowledge of those of ordinary skill in the art. However it must be noted that none of the references cited were incorporated into the specification as filed and applicant cannot properly rely on the Remarks section of an amendment to set forth facts, which the specification itself must recite to be complete.

Further, it is not seen wherein any of the articles/patents cited by applicant disclose the “narrow deformed length of the internal duct”, nor how and in what manner the references teach or disclose how to modify the instant invention as they appear to be drawn to a nuclear fuel assembly and an instrument tube, NOT ventilation duct work.

Hence applicant’s arguments are insufficient in overcoming the Examiners contentions of sections 3 and 4 of said Office action mailed 6/14/2005 and must be corrected accordingly, for example by canceling the objectionable subject matter/features from the claims.

It is noted applicant only argued the objecting of section 4c (of the 6/14/2005 Office action), however applicant’s arguments are not persuasive as explained in more detail below.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

3. The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to provide an adequate written description of the invention and as failing to adequately teach how to make and/or use the invention, i.e. failing to provide an enabling disclosure for the reasons set forth in section 6 of the previous Office action mailed 6/14/2005.

See the discussion of sections 6a and 6b (of the previous Office action mailed 6/14/2005) in section 1 above.

Applicant's arguments in section B spanning pages 10 and 11 (of the remarks received 10/11/2005), regarding the section 4c and 6c (of the 6/14/2005 Office action) objections, are considered as supporting the Examiners contentions that there actually is no adequate description of how the instant invention is capable of performing ALL of the desired functions as it is not seen wherein the specification as filed discloses that the ducts may be comprised of two lengths like the design discussed in Malandra et al., nor how and in what manner both lengths would be supported, nor how and in what manner the cruciforms (76) are able to support duct (52) when figure 2 shows they are internal and figure 1 shows they are external. It is not seen exactly how these cruciforms are to interact with the duct in order to provide any support whatsoever as Figures 1 and 2 appear to disclose two different embodiments not capable of coexisting with each other. Further, although the references set forth modifications to their own respective inventions, it is not seen wherein any of the references cited disclose how to specifically modify the Applicant's instant invention as claimed. Accordingly the references cannot properly be relied upon to set forth facts, which Applicant's specification itself must recite to be complete.

Claim Rejections - 35 USC § 112

4. Claims 1-6 and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention for the reasons set forth in section 3 above.

5. Claims 1-6 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claims 1, 2 and 5 are vague, indefinite and incomplete as to what as is meant and encompassed by the phrase "an upper end supported by the seismic support platform" for the reasons set forth in section 3 above.

Applicant's amendments to claims 2 and 5 necessitated their addition to this rejection. (Repeated from the 6/14/2005 Office action)

b. Claim 2 is vague, indefinite and incomplete as to what all is meant and encompassed by the terms "support springs" for the reasons set forth in section 1 above. (Repeated from the 6/14/2005 Office action)

c. Claim 3 is vague, indefinite and incomplete as to what all is meant and encompassed by the phrase "supported by the springs against the

coil stack assemblies" for the reasons set forth in section 1 above.

(Repeated from the 6/14/2005 Office action)

d. Claims 4 and 5 are vague, indefinite and incomplete as to what all is meant and encompassed by the phrase "seismically supported by the seismic support platform" for the reasons set forth in section 3 above.

Simply stating that "designers would understand that the ducts could be joined by any suitable means such as by welding or with fasteners" and "the upper end of the duct is supported by the upper plenum by, e.g. bolts extending through duct flanges" does not specifically disclose how and in what manner said ducts are joined, said flanges are made, where they are disposed, how big they are, how flow/structural interference is prevented, how vibration is accounted for such that the ducts don't break/crack/fall off, etc. hence applicants arguments are not persuasive. Applicant's 10/11/2005 amendment to claim 5 necessitated its addition to this rejection.

Claim Rejections - 35 USC § 103

6. Claims 1, 4-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,678,623 to Malandra et al. provided on applicant's

IDS dated 9/24/2003 for the reasons set forth in section 13 of the 6/14/2005 Office action.

Applicant's arguments filed 10/11/2005 have been fully considered but they are not persuasive. Applicant's arguments are directed towards the intended use, however the apparatus of Malandra is inherently capable of performing the intended use and it is only necessary that this capability be present.

As to limitations which are considered to be inherent in a reference, note the case law In re Ludtke, 169 USPQ 563, In re Swinehart, 169 USPQ 226, In re Fitzgerald, 205 USPQ 594, In re Best et al, 195 USPQ 430, and In re Brown, 173 USPQ 685,688.

Regarding claim 5, attention is drawn to, for example, column 7 lines 10-30, wherein it is clearly disclosed that the ducts can be split into vertical sections and sealingly secured to the seismic support platform. The appropriate apertures serving to fluidically connect the upper and lower duct sections inherently have material that defines said apertures, which reads on applicant's internal plate limitation.

7. Claims 1, 4-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication US2003/0026377A1 to

Baliga et al. in view of Malandra et al. and further in view of U.S. Patent 4,302,290 to Mazur et al.

Baliga discloses a head assembly for a RPV, comprising, for example:

- a RPV closure head (90);

- a seismic support platform (300) spaced from the closure head;

- an array of CRDMS (96), each CRDM including an electro-magnetic coil stack-assembly and having a lower end supported by the RPV and an upper end supported by the seismic support platform (see, for example, paragraph 21);

- a lower shroud (520) surrounding the electro-magnetic coil stack assemblies and having an upper end spaced from the seismic support platform in airflow communication with the atmosphere around the CRDMS;

- a plurality of ducts (1600) surrounding the array of CRDMS, each duct extending from a lower end disposed in air flow communication with the lower shroud to an upper end;

- an upper plenum (680) disposed above the seismic support platform in airflow communication with the ducts (see for example, fig 1, or paragraph 0074);

- a missile shield assembly (1400) disposed within the upper plenum,

- a plurality of fan assemblies (190) disposed on the upper plenum in air flow communication with the upper plenum; and

- lift legs (171 and 160) connected with the RPV closure head and supporting the seismic support platform, the upper plenum and the missile shield

assembly for removal of the head assembly as an integral assembly in for example, figures 1, 8, 10, 14, the abstract, paragraphs 18-23 and claim s 1, 7, .

Although Baliga discloses at least one upwardly extending duct, Baliga does not specifically disclose that the ventilation ducts are internal to the CRDM array.

Malandra teaches it is old, advantageous and "quite important" to locate the cooling system components within the envelope of the closure head in order to not interfere with the tension bolt or hydraulic tensioning apparatus or equipment in addition that no interference is presented with respect to other structural components within the containment area when the closure head is removed from the pressure vessel and moved to a storage position in column 8 lines 12-40.

At the time of the invention it would have been obvious to one of ordinary skill in the art to relocate the ducts of Baliga et al. from the periphery of the CRDMs to the internal spaces within the CRDMs for the benefits of providing additional space for maintenance of peripheral CRDMs, for utilizing tension bolt or hydraulic tensioning apparatus or equipment and in addition for providing additional clearance so that no interference is presented with respect to other structural components within the containment area when the closure head is removed from the pressure vessel and moved to a storage position as taught to be old and advantageous by Malandra.

Additionally it is pointed out that MPEP 2144 states that making separable, rearrangement of parts (such as interspersing the ducts within the CRDMs), duplication of parts and/or changing the shape does not make an invention patentably distinct. See *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961), *In re Japikse*, 181 F.2d 1019 86 USPQ 70 (CCPA 1950) and *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975), *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960), *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)

It would appear to be well within the knowledge to one of ordinary skill in the art to recognize that simply changing the location of the ducts is an obvious variant as Mazure et al. column 3 lines 1-25 clearly states "the function of the ductwork...is to afford a means of funneling to the reactor vessel the cooling required in the course of conduct of the operation of the nuclear reactor housed within the reactor vessel". Clearly if it was determined that specific areas of the reactor vessel required additional cooling that additional ductwork/fans or redirection of current ductwork would be warranted.

Therefore it is further considered obvious to alter the locations and/or quantity of ductwork for the purpose of cooling the reactor vessel in the required manner, as taught by Mazur et al.

Claim 4 is further disclosed in paragraph 18, wherein it is understood that rearranging ducts to be within the array of CRDMs would still require said ducts to be seismically supported by the seismic support platform.

Claim 6 is further disclosed in, for example paragraph 18 wherein it is understood that the word support does not specifically connote structural support, per se. The claim language "support" also connotes the fact that the supply fans "support" the internal ducts by supplying them with cooling air, hence the limitation the internal ducts are supported by the upper plenum reads on the Examiners interpretation.

Claim 9 is further disclosed in, for example, figure 14 and paragraphs 64-68, wherein it is understood that the apparatus of Baliga et al. is clearly capable of the intended use disclosed in the claim. Further it is merely a matter of how and in what manner apparatus is disassembled in order to remove separate sections or the entire head integrally, hence Baliga meets the intended use of the claimed apparatus.

As to limitations which are considered to be inherent in a reference, note the case law In re Ludtke, 169 USPQ 563, In re Swinehart, 169 USPQ 226, In re Fitzgerald, 205 USPQ 594, In re Best et al, 195 USPQ 430, and In re Brown, 173 USPQ 685,688.

It is noted that the claim contains statements of intended or desired use. However, there is well settled case laws that such statements (whereby, when , may be, is attached, etc.) as to possible future acts or to what may happen in a method or operation, are essentially method limitations or statements of intended

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or desired use and do not serve to patentably distinguish the claimed structure over that of the references. See *In Re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 152 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

See MPEP 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ 2nd 1647.

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. *In re Danly*, 120 USPQ 528, 531.

Apparatus claims cover what a device is, not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ 2nd 1525, 1528

As set forth in MPEP 2115, a recitation in a claim to the material or article worked upon, does not serve to limit an apparatus claim.

8. Claims 1, 4-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Integrated Head Assembly for Korean Next Generation Reactor" by Kim et al. alone (supplied by applicant 10/11/2005) or in the alternative over either Malandra et al. or U.S. Patent 4,302,290 to Mazur et al.

Kim et al. appears to disclose applicant's invention as claimed in, for example, the abstract, introduction, cooling shroud assembly, etc.

Although Kim et al. discusses ductwork and teaches that the design of the cooling fans is based upon the amount of heat to be removed from the CEDMs and the reactor vessel CEDM nozzles (see, for example, page X1-316 CEDM cooling system), Kim et al does not specifically disclose the exact locations of said ductwork, ducts, baffles, etc required to facilitate said heat removal/cooling requirements.

It is considered prima facie obvious that one of ordinary skill in the art would be capable of determining the placement of ducts and size of the fans required to remove the heat generated in accordance with the cooling requirements desired such that the ducts would be located where required, including within and/or between the CRDM array. However if applicant is of the opinion that such is not so, then the teachings of either Malandra et al. or Mazure et al. (as explained in section 7 above) are equally applicable here as evidence that it would indeed have been obvious to one of ordinary skill in the art to locate said ducts within and between the CRDM array for the benefits thereof as taught to be advantageous by either Malandra et al. or Mazure et al..

Requirement for information under 37 CFR 1.105.

9. Applicant's Affidavit received 10/11/2005 appears to indicate that applicant is in control of documentation that should have been submitted in an IDS.

A review of the article "Integrated Head Assembly for Korean Next Generation Reactor" by Kim et al. submitted by applicant on 10/11/2005 in an

attempt to show the skills and abilities of those of ordinary skill in the art, appears to indicate an invention extremely similar to the instant claimed invention, however it is noted that the figures from said article were not provided by applicant.

Accordingly, applicant is required under 37 C.F.R. 1.105 to provide the entire "Integrated Head Assembly for Korean Next Generation Reactor" article by Kim et al. including the figures which appear to be on pages X1-321+

A statement by applicant that this information is unknown and/or not readily available, will be accepted as a complete response to this requirement.

In regard to the requirement for information under 37 C.F.R. 1.105, notice is taken of the January 3, 2005 Decision of the United States Court of Appeals for the Federal Circuit in the case of Star Fruits S.N.C. v. United States.

Pertinent portions of said Jan. 3, 2005 decision have been reproduced below.

Under 37 C.F.R. §1.105 the Office can require information that does not directly support a rejection. An agency's interpretation of its own regulations is entitled to substantial deference and will be accepted unless it is plainly erroneous or inconsistent with the regulation. See Eli Lilly & Co. v. Bd. Of Regents of the Univ. of Wa., 334 F. 3d 1264, 1266 (Fed. Cir. 2003). Here, the Office considered information concerning any sale or public distribution of the claimed invention and any information concerning Breeder's Rights applications or grants as within the authorized scope of a Requirement For Information under section 1.105.

This interpretation is not plainly erroneous or inconsistent with the regulation. Congress has delegated to the Office the rulemaking power to "establish regulations, not inconsistent with law, which-(A) shall govern the conduct of proceedings in the Office." 35 U.S.C. § 2(b)(2) (2000) (formerly at 35 U.S.C. § 6(a) (1988), see Merck & Co. v. Kessler, 80 F. 3d 1543, 1549-50 (Fed. Cir. 1996)); Stevens v. Tamai, 366 F.3d 1325, 1333 (Fed. Cir. 2004). Section 1.105 stems from an initiative entitled Changes to Implement the Patent Business Goals. Through notice and comment rulemaking the Office made explicit the inherent authority of Office employees to require information from an applicant. The goal is to "encourage" employees to use that power to "perform the best quality examination possible." 65 Fed. Reg. 54,604, at 54,633 (September 8, 2000) (to be codified at 37 C.F.R. pts. 1, 3, 5, 10); see also 64 Fed. Reg. 53,772 (proposed

October 4, 1999); 63 Fed. Reg. 53,498 (proposed October 5, 1998). The final rule permits that "the examiner or other Office employee may require the submission ... of such information as may be reasonably necessary to properly examiner or treat the matter." 37 C.F.R. 1.105(a)(1) (emphasis added).

We think it clear that "such information as may be reasonably necessary to properly examiner or treat the matter," 37 C.F.R. 1.105(a)(1), contemplates information relevant to examination either procedurally or substantively. It includes a zone of information beyond that defined by section 1.56 as material to patentability, and beyond that which is directly useful to support a rejection or conclusively decide the issue of patentability. Several observations militate in favor of this conclusion.

First, under the current regulations an applicant has an affirmative duty to disclose information material to patentability. See 37 C.F.R. § 1.56. Because an applicant already has a duty to disclose this information, it makes no sense for the Office to promulgate a rule empowering it to "require the submission" of information the applicant is required to submit in the first instance.

Second, section 1.105 identifies the required information as that information "reasonably necessary to property examiner or treat the matter" instead of that information "material to patentability." Under ordinary principles of interpretation, the choice of different language indicates a different intended meaning.

Third, the plain language of the regulation contemplates requirements for information that go beyond information required by section 1.56. For example, "any non-patent literature ... by any of the inventors, that relates to the claimed invention[.]" 37 C.F.R. § 1.105(a)(1)(iii) (emphasis added), could include sales brochures, catalogues, or PBR applications or grants. "[A]ny use of the claimed invention known to any of the inventors at the time the application was filed notwithstanding the date of the use," id. § 1.105(a)(1)(vii) (emphasis added), could refer to uses that would not affect patentability at all. Likewise, information directed to whether a search was conducted and what was searched, id. § 1.105(a)(1)(ii), is not necessarily required by section 1.56. Other requirements for information are also foreseeable under the "reasonably necessary to property examiner or treat the matter" standard. For instance, it might be reasonably necessary for the Office to require an explanation of technical material in a publication, such as one of the inventor's publications, or require the applicant's comments on a recent Federal Circuit opinion and how that opinion affects examination. See, e.g., 65 Fed. Reg. at 54,634. Although this information improves the quality and efficiency of examination it is not necessarily information that an applicant is required to provide under section 1.56¹. In sum, we think that the Office's interpretation of 37 C.F.R. § 1.105 conforms to the plain language of the regulation....

The Director is charged with the duty of deciding whether a patent should issue from an application. To perform that duty, the law must be applied to the facts at hand in any application. That the person charged with enforcement of the law, here an examiner, may sometimes disagree with the applicant on the theory or scope of the law to be applied is hardly surprising. So long as the request from the examiner for information is not arbitrary or capricious, the applicant cannot impede the examiner's performance of his duty by refusing to comply with an information requirement which proceeds from the examiner's view of the scope of the law to be applied to the application at hand. To allow such interference would have the effect of forcing the Office to make patentability determinations on insufficient facts and information. Such conduct inefficiently shifts the burden of obtaining information that the applicant is in the best position to most cheaply provide onto the shoulders of the Office and risks the systemic inefficiencies that attend the issue of invalid patents. Examination under such circumstances is neither fair and equitable to the public nor efficient.

Conclusion

10. Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

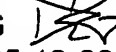
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L. Greene Jr. whose telephone number is (571) 272-6876. The examiner can normally be reached on Mon-Fri 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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2005-12-20


JACK KEITH
SUPERVISORY PATENT EXAMINER